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| 09/417,705 | 10/13/1999 | JUNYA KAKU | 991142 | 7820 |

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ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
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EXAMINER

NGUYEN, LUONG TRUNG

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2612

DATE MAILED: 01/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/417,705

Applicant(s)

KAKU, JUNYA

Examiner

LUONG T NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 10/28/2003 have been fully considered but they are not persuasive.

In re pages 8-9, Applicant argues that Hayashi '427 and Hirabayashi '596 fail to disclose or remotely suggest anything about forming the two memory areas into the memory, selectively selecting each of the two memory areas, writing the image signal into one of the two memory areas based on the selecting result, and reading the image signal from the other two memory areas based on the selecting result.

In response, regarding claim 1, the Applicant amended claim 1 with the limitation "a memory having at least two memory areas; a selector for selectively selecting each of said two memory areas; a writer for writing the second image signal outputted from said thinning-out circuit to one of said two memory areas based on a selection result of said selector; and a reader for reading the second image signal from the other of said two memory areas based on the selection result of said selector." The Examiner considers that claim 1 as amended still does not distinguish over Hayashi patent in view of Hirabayashi et al. patent. Hayashi does not disclose these features. However, Hirabayashi et al. disclose memory 11 (SDRAM) has two banks A and B, the data can be written and read out, independently of each other, these banks can be switched (figure 1, column 4, line 63 – column 5, line 3).

In re page 9, Applicant argues that it is not reasonable, proper, or likely for one skilled in the art to combine these two references.

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In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US 5,734,427) in view of Hirabyashi et al. (US 6,295,596).

Regarding claim 1, Hayashi discloses a digital camera, comprising an imaging device for imaging an object so as to output a first image signal having a first resolution (CCD image sensor 12, figure 1, column 2, lines 60-67); a thinning-out circuit for thinning out the first image signal so as to create a second image signal having a second resolution lower than the first resolution (movie processing circuit 20, figure 1, column 2, lines 52-56); a memory (memory 32, figure 1, column 3, lines 55-65); a displayer for displaying an image based on the second image signal read out by said reader (monitor 29, figure 1, column 2, lines 52-56).

Hayashi fails to specifically disclose a memory having at least two memory areas; a selector for selectively selecting each of said two memory areas; a writer for writing the second image signal outputted from said thinning-out circuit to one of said two memory areas based on a selection result of said selector; and a reader for reading the second image signal from the other of said two memory areas based on the selection result of said selector. However, Hirabayashi et al. disclose memory 11 (SDRAM) has two banks A and B, the data can be written and read out, independently of each other, these banks can be switched (figure 1, column 4, line 63 – column 5, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Hayashi by the teaching of Hirabayashi et al. in order to obtain a device in which data can be read out fast by switching the banks (column 6, lines 29-30).

Regarding claim 9, Hayashi discloses the memory has a single signal input/output port (figure 1, memory 32).

4. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US 5,734,427) in view of Hirabyashi et al. (US 6,295,596) further in view of Parulski et al. (US 6,292,218).

Regarding claim 2, Hayashi and Hirabyashi et al. fail to specifically disclose wherein said imaging device outputs one screen of the first image signal every first period, and said reader reading out one screen of the second image signal every second period shorter than the first period. However, Parulski et al. disclose an electronic camera in which the motion review mode

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(second resolution signal) uses a shorter image readout period than the still mode (first resolution signal, see abstract, column 5, lines 20-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Hayashi and Hirabayashi et al. by the teaching of Parulski et al. in order to obtain a camera in which the digital image processing is more elaborate (column 5, lines 1-10).

Regarding claim 3, Parulski et al. disclose wherein the first period is an integral multiple of the second period (column 5, lines 20-35, Parulski et al. disclose system oscillator 100 produces a 12mHz clock frequency for use in motion mode (corresponding to second predetermined period) while produces a 6 mHz clock frequency for use in still mode (corresponding to first predetermined period)).

Regarding claim 4, Hirabayashi et al. disclose the selector switches a memory area to be selected at an interval of the first period (column 6, lines 64-67).

Allowable Subject Matter

5. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 6, the prior art of the record fails to show or fairly suggest a digital camera, comprising a processor for outputting at predetermined timing a first disable signal, a second disable signal and a third disable signal in response to an operation of said instruction key; wherein said thinning-out circuit being disabled by the first disable signal simultaneously with the operation of said instruction key, said reader being disabled by the second disable signal simultaneously with the operation of said instruction key, and said writer writing the first image signal outputted from said imaging device to said memory and disabled by the third disable signal after one screen of the first image signal has been written.

Claims 7-8 are allowable for the reason given respect to claim 6.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Luong Nguyen** whose telephone number is (703) 308-9297. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

LN LN
1/24/2004


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PRIMARY EXAMINER